T667-(RGB) R20

Multifunction CV LED Controller

User Manual

Please read this manual carefully before using this controller.

Instructions:

Thanks for using T667 (RGB) R20 controller of our company. Before installation, please read this manual carefully to ensure fully understand and proper use in order to avoid unnecessary damages to the controller.

Before using, please check to confirm whether there is any damage caused during the transport process, if there is, please notify your supplier and do not use the product.

After-sale services:

Warranty of this product is one year, in this period we guarantee repairing or replacement service with no charge if it is normally used according to the instruction.

If the customer does not follow the instructions and following provisions in this manual, which results in product damage, the supplier is not responsible for any problems arising and defects, even in the warranty period, maintenance costs borne by the customer.

1. Damage caused by misuse, such as not in accordance with the instructions.
2. Damages caused by unauthorized removal, repair, modify of the circuit; incorrect connection and replacement of the chips.
3. Damage caused by transportation, shock, falling after purchase.
4. Damage caused by earthquake, fire, flood, lightning and abnormal voltage.
5. Damage caused by negligence or improper maintenance, such as storage at high temperature and humid environment, vicinity of hazardous chemical substances.
6. Replacement of products.

Instructions for safety:

Making sure you use the product perfectly and safely, please observe the instructions and warning on this manual. Attention! Operate cautiously and read these instructions carefully.

1. For installation, try to avoid the minefields, strong magnetic field and high-pressure area.
2. Ensure that the wire is connected correctly and firmly in order to avoid short-circuit damage to parts and posing a fire hazard.
3. Please install controller in a well-ventilated place to ensure the ambient temperature is moderate.
4. Before using, please check the DC power and voltage meet the product technical requirements; positive & negative polarity is defined consistent to the product (with CV power supply)
5. Prohibit live wiring, check to confirm wiring is correct, if no short-circuit, then power!
6. If any problems do not make unauthorized repairs. Any doubts please contact your local supplier.

This manual applies only to this product of our company, subject to changes without notice.

Introduction

T667(RGB)R20 series controller is a smart RGB three colors light controller dedicated to long-illumination LED light, using the most advanced PWM (Pulse Width Modulation) digital control technology, the controller can be operated through RF wireless remote controller. The installation of LED controller can apply to commercial or home lighting on different occasion with different environment, extend the LED life span, and save energy; LED and RGB lights can use this controller to colorize.

1. Technology specifications

Type	T667(RGB)R20
Input power	DC12V~24V
Output signal	Three ways PWM signal
Max load current	5A*3
Output power	180W(12V)/360W(24V)
Controller dimension	128.5*64*24MM
Remote dimension	85*52*7MM
Net weight	156.3g
Gross weight	185.7g

2. Functions

(1).RGB full colors LED strip controller.

(2).Control way: RF remote control, available in 20-meter (No barriers).

(3).3 channels output, max current is 5A for each channel, totally 15A;

(4).Wide range for voltage input: DC12V~24V;

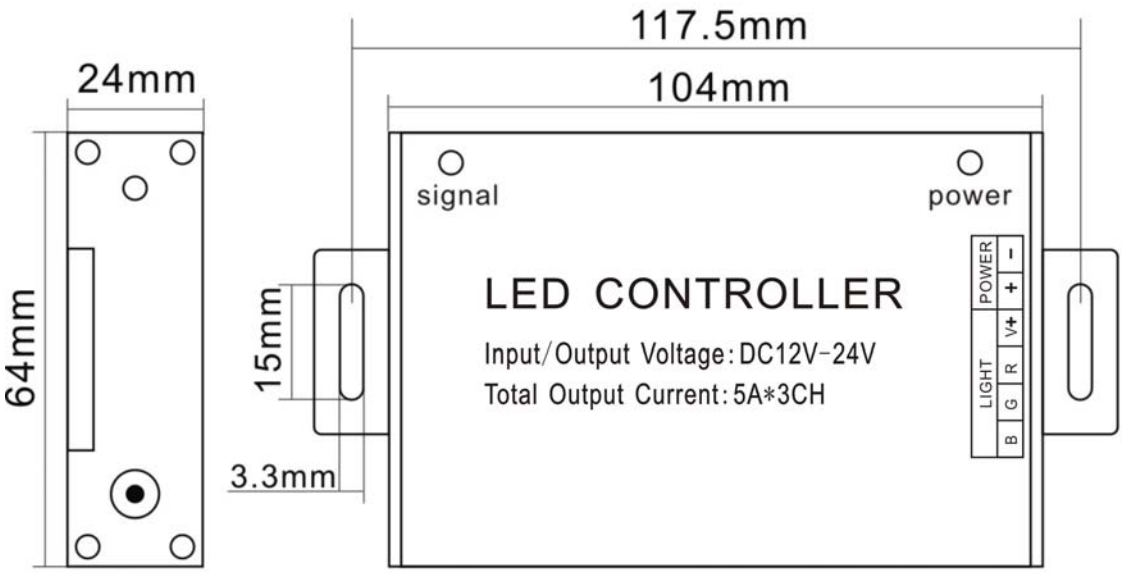
(5).PWM signal output;

(6).Mode: 8 statics,6 dynamics;

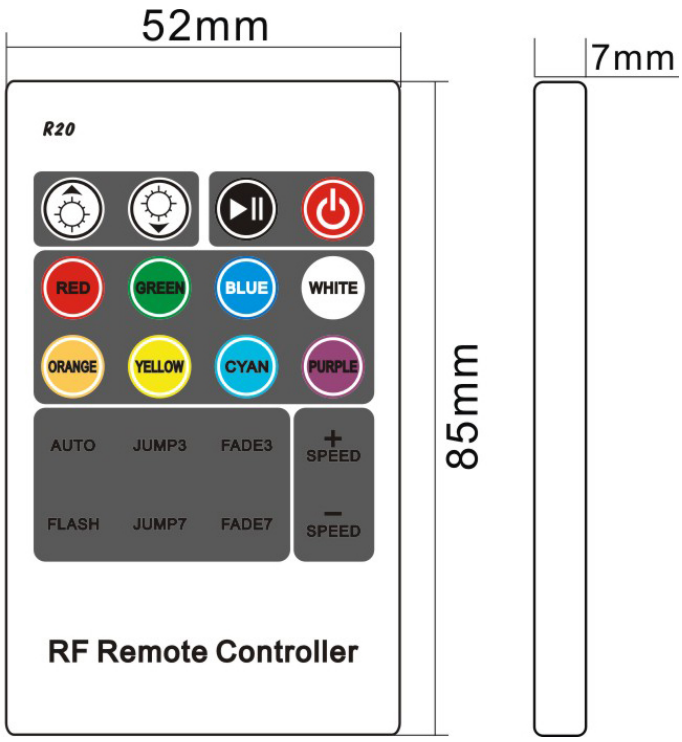
(7).128 levels for static brightness dimming, and 16 levels for dynamics speed adjustment.

3. Structure

(1).View of major controller：（chart 1）



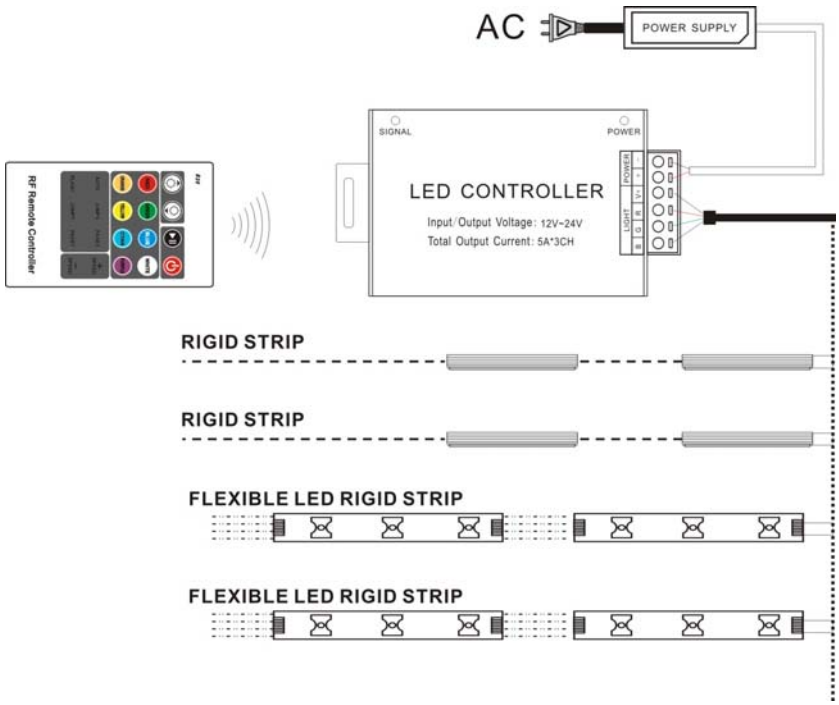
(2). View of remote controller (chart 2).



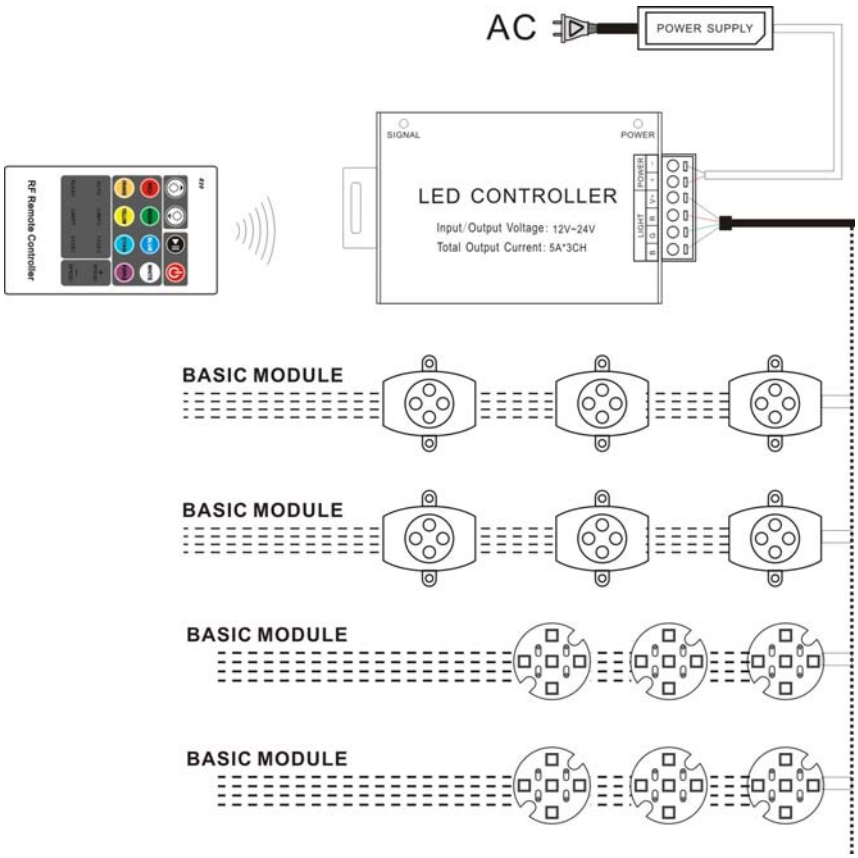
4. Connection diagram of controller

(1).Connection diagram to low power LED: （chart 3）

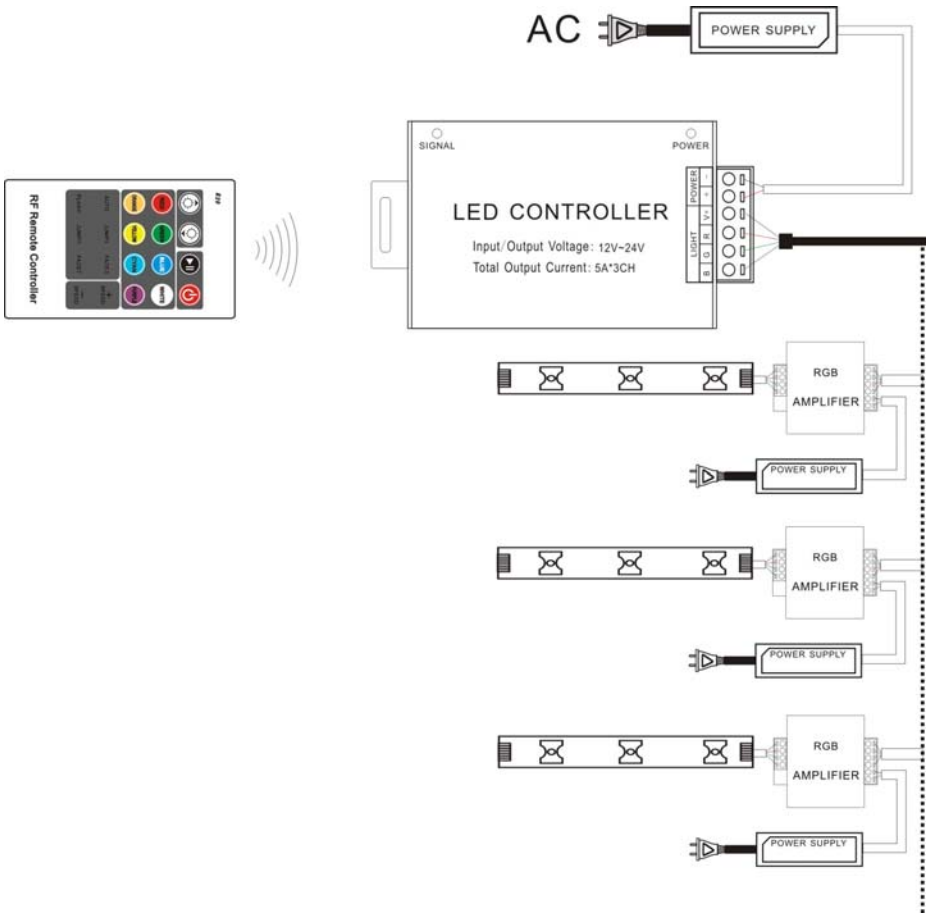
- Case 1:



- Case 2



- Case 3:



(2).Descriptions for remote keys. (Chart 4)

Symbol	Function	Remark
	On and off	On or off the controller anytime
	Play & pause	Can pause in dynamic states
	Brightness up	Increase the brightness
	Brightness down	Decrease the brightness
	Static red	Red always on, and brightness adjustable
	Static green	Green always on, and brightness adjustable
	Static blue	Blue always on, and brightness adjustable
	Static white	White always on, and brightness adjustable
	Static orange	Orange always on, and brightness adjustable

	Static yellow	Yellow always on, and brightness adjustable
	Static cyan	Cyan always on, and brightness adjustable
	Static purple	Purple always on, and brightness adjustable
	Auto play	Auto play in a loop for dynamics effects
	3-color jump change	Both brightness and speed are adjustable
	3-color gradual change	Speed is adjustable
	Speed up	Up the speed for changing modes
	7-color flash	Both brightness and speed are adjustable
	7-color jump change	Both brightness and speed are adjustable
	7-color gradual change	Speed is adjustable
	Speed down	Slow the speed for changing modes

When you press the remote, the indication light (green light) will flicker once, which means the remote have received the signal once.

Note for remote: when the controller powers on, press and at the same time to activate the remote, it make sense when the indication light flickers. Only after this operation, the remote can control the controller, otherwise not.

(3). Descriptions for modes.(Table 1)

JUMP3	Red---Green---Blue
JUMP7	Red--- Green---Yellow---Blue---Purple---Cyan---White
FADE3	Red---Green---Blue
FADE7	Red---Yellow---Green---Cyan---White---Blue---Purple
FLASH	Red---Green---Yellow---Blue---Purple---Cyan---White

5. Failure analysis and solutions

Failure	Analysis	Solutions
No light	1. No power. 2. Reversed the polarity. 3. Wrong connection or poor contact. 4. LED light has been bad.	1. Check the power 2. Make sure the polarity is right. 3. Re-check the wire connection. 4. Replace a new LED light.
Brightness of LED is not consistent	1. Input wire is too long to cause wire loss. 2. Diameter of wire is too thin to cause wire loss. 3. Power overload. 4. Controller overload.	1. Shorten wire or use loop circuit. 2. Calculate the current, and then replace thick wire. 3. Replace larger power. 4.Add a power amplifier

Tips: The effective power is generally only 80% of the marked power, so it is recommended in selecting the power supply, the user choose a slightly larger one than the LED load power, at least for more than 20%!